2014-1363
(Reexamination No. 90/009,918)

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

IN RE: INVENTOR HOLDINGS, LLC

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board.

BRIEF FOR APPELLEE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

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August 1, 2014

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STATEMENT OF RELATED CASES

The Director is not aware of any other appeal in connection with the claims on appeal that has previously been before this Court, or that is currently pending in any other appellate court. There are no cases known to counsel pending in this or any other court that will directly affect or be directly affected by this Court's decision in the pending appeal.

I. STATEMENT OF THE ISSUES

U.S. Patent No. 6,263,505 (the '505 patent) claims a system and method for providing supplemental information for a video program. The supplemental information is synchronized with the play (or replay) of the video program. However, a prior art patent, U.S. Patent No. 5,559,949 ("Reimer"), teaches the same system and method. Additional references, combined with Reimer, capture variations on the primary system and method, but the teachings of those references are not at issue on appeal. Thus, the only issue on appeal is whether Reimer anticipates or renders obvious claims 1-64 of the '505 patent.

II. STATEMENT OF THE CASE

This appeal arises from an *ex parte* reexamination initiated in 2011. The Examiner rejected all of the claims as anticipated by or obvious in view of Reimer alone or in combination with other references. (AX574-695.) Inventor Holdings appealed that decision to the Board. The Board affirmed the Examiner's rejections. (AX1-19.) This appeal followed.

A. The Claimed Invention: A System and Method for Supplying Supplemental Information for Video Programs

The claims on appeal, including original claims 1-43 and proposed claims 44-64, concern providing supplemental information for video programs through a computer network interface. (*See* AX1141-55 ('505 patent), 333-55 (Claims Appendix).) "The video program can be, for example, a live broadcast television

program or a time-shifted tape recording of a television program." (AX1141 (Abstract).) The supplemental information can be, for example, the contents of a prop used in the video, such as a suicide note or a medical record, audio background conversations, clips of alternate scenes, or the script of the video. (AX1149-50 (col. 4-5).)

"The supplemental information is synchronized to the video program by using a time code which is integrated with the video program." (AX1141 (Abstract).) The purpose of the synchronization is to "enable[] the supplemental information to be viewed and/or listened to in harmony with the events or action of the video program." *Id.*

The specification states that prior art systems provide supplemental information with video, but fail to provide *synchronized* information, for example if the program is recorded and later replayed. (AX1148 (col. 2, ll. 49-54).)

Claim 7 is illustrative:

> A method for providing supplemental information using a data processing apparatus including a CPU and a storage device operatively connected to the CPU and containing a program adapted to be executed by the CPU for processing a request for the supplemental information related to a video program and providing the requested supplemental information, said method comprising the steps of:
>
> receiving a request for the supplemental information related to the video program;
>
> receiving synchronization information related to the video program;

processing the request for the supplemental information by having the CPU in the data processing apparatus execute the program;

synchronizing the requested supplemental information to the video program using the synchronization information;

and transmitting the requested supplemental information.

(AX334-35.) Additional independent and dependent claims (claims 1-6 and 8-64) add various limitations to this central idea. (*See* AX333-55.)

B. The Prior Art Reimer: A Computer Program and Storage Device for Linking and Presenting Movies With Their Underlying Sourcing Information

Reimer describes "a system and method for providing on demand access to information related to a movie while the movie is being presented to the user." (AX1167-1201, 1167 (Abstract).) The system synchronizes the information by responding to a user query, "determin[ing] a frame of the movie that was being presented to the user when the user issued the query," "identify[ing] portions of movie related information relating to the frame," retriev[ing] those portions of movie related information," and presenting the information to the user. *Id.* Some of the types of movie information provided to the viewer in Reimer are stills with pan and zoom controls, director voice-overs, and scripts. (AX1190 (col. 5, ll. 43-67).) Reimer states that a movie can be seen "through a presentation box, to concurrently view the movie and related information of interest." (AX1190 (col. 5, ll. 66-67).)

C. The Examiner's Rejections

In a 120-page final office action, the Examiner rejected claims 1-43 and newly added claims 44-64 as anticipated and obvious. (AX574-695.) Specifically, the Examiner rejected the bulk of the claims (claims 1-13, 15-22, 24, 26-34, 37-46, 49, 50, and 57-64) as anticipated by Reimer. The Examiner rejected two claims (claims 14 and 51) as obvious over Reimer alone. The Examiner rejected the remaining claims (claims 23, 25, 35, 36, 47, 48, and 52-56) as obvious over Reimer in view of other references. On appeal, Inventor Holdings only disputes the teachings of Reimer. Thus, the other references and obviousness combinations are not discussed herein.[1]

Given the number of claims and rejections, only the rejections at issue on appeal are discussed below.

1. Rejections Based on the Limitation "Data Processing Apparatus Including a CPU and a Storage Device"

Claim 7, which is illustrative of the claims on appeal, requires "a data processing apparatus including a CPU and a storage device." The Examiner found that Reimer expressly teaches this limitation. (AX582.) Specifically, the Examiner cited Reimer's teaching of "a computer system" including "a processor" (element **204**), various components being implemented through the computer

[1] Inventor Holdings disputes the obviousness rejection of claim 14 based on Reimer. The Director addresses this rejection below.

system (element **202** in Figure 2), and the computer system "includ[ing] secondary memory **214**, which may include a storage device **216**." (AX582 (citing col. 8, ll. 40-50, 55-57, 48-55, 61-65 (AX1191); Fig. 2 (AX1191).)

In response to this rejection, Inventor Holdings argued that the claimed "data processing apparatus" must reside on a single computer. The Examiner disagreed. The Examiner noted that the claims must be given their broadest reasonable interpretation. (AX657.) The Examiner then affirmatively construed the term "apparatus" as "a set of equipment designed for a particular use." (AX657-58.) With this definition in mind, the Examiner explained how Reimer teaches the claimed apparatus by teaching a set of equipment, "'i.e. CPU, storage device, databases, etc., designed for a particular use that is the processing of data.'" (AX658.)

The Examiner considered the declaration of Mr. Wolfe that Reimer does not disclose a data processing apparatus in the form of a single computer, but found it unpersuasive based on the claim language and the express disclosures of Reimer. (AX657-58, 660.)

The Examiner agreed with Inventor Holdings that the preamble, which includes the term at issue, is a limitation of the claim, and that the claimed "storage device," which is part of the "data processing apparatus" must be "operatively connected" to the CPU. (AX663-64.) However, this did not change his view of

the meaning of the term "data processing apparatus" or the applicability of Reimer to the claims.

The Examiner disagreed with Inventor Holdings' argument that Reimer cannot anticipate or render the claims obvious because it teaches "a distributed system that is distinct for the data processing apparatus that performs the method of claim 7." (AX667.) The Examiner repeated that even a single apparatus can include a set of equipment. (AX667-68.)

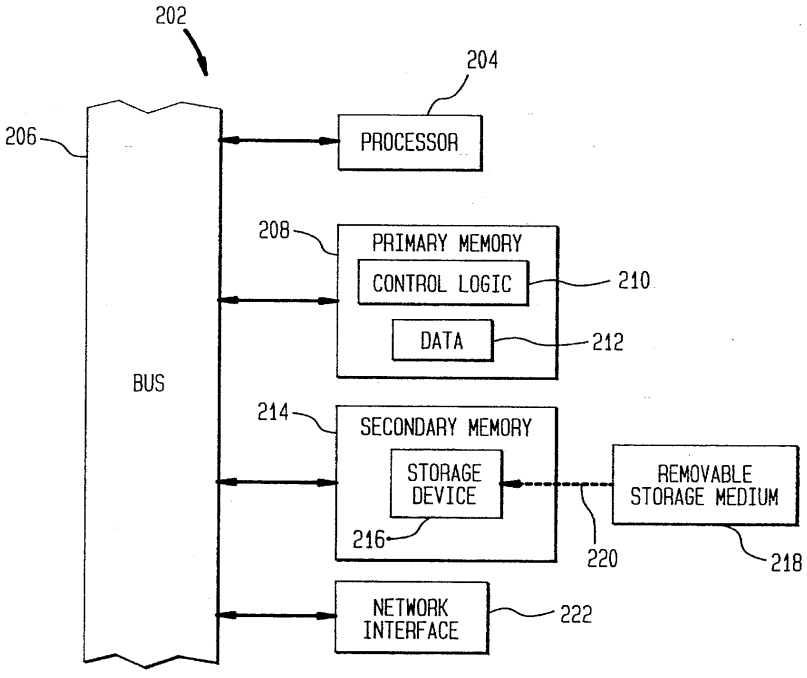
The Examiner also found that Reimer does not teach away from a single data apparatus merely because it teaches that its apparatus "'*may be* distributed for performance reasons'" and is "'preferably implemented'" in a certain way. (AX673.) The Examiner noted that Reimer teaches that its "software and/or hardware control logic of the presentation and control component (104)" can be "combined with the user device (106)," and that Reimer does not "criticize, discredit or otherwise discourage trying a single data apparatus." (AX672-73.)

For the same reasons as discussed above, the Examiner also concluded that claim 1, which claims "a server apparatus," rather than "a data processing apparatus," does not require "one single server." (AX674-75.)

2. Rejections Based on the Limitation "A Server Including a Controller and a Storage Device Operatively Connected to Said Controller"

Claims 39 and 41 require "a server including a controller and a storage device operatively connected to said controller." (AX341-43.) The Examiner found that Reimer expressly teaches this feature. (*See, e.g.*, AX591 (citing col. 8, ll. 40-50 (discussing the "presentation and control component" implemented using a computer system in Figure 2, which includes a "storage device"); col. 8, ll. 55-57 (discussing the "control logic" that enables the processor to perform various functions described).) Figure 2, which illustrates the computer system with the storage device, is reproduced below.

FIG. 2



(AX1169.)

The Examiner further cited Reimer's express disclosure of a server: "the user devices **106** are each used as the application driver in a *client/server* model, and make[] *server requests* of the databases **112**, **122** and *digital servers* through the index interface component **118** and the foundation information interface component **108** through an integrated interface." (AX687-88 (citing col. 7, l. 66 – col. 8, l. 11) (emphasis added).) The Examiner again cited Reimer's disclosure that within this "client/server model," there is a controller and a storage device operatively connected to the controller. (AX687-88 (citing col. 8, ll. 40-50).) Again, Figure 2 shows the computer system **202** with the control logic **210** and the storage device **216**.

In response, Inventor Holdings argued that Reimer does not teach the limitations in claim 39 and 41 because Reimer does not teach a *single* server. The Examiner disagreed with Inventor Holdings' argument because a single server is not recited in the claims. (AX686-88.) The Examiner noted the claims' use of the word "including," which "does not exclude additional, unrecited elements or method steps." (AX687.)

3. Rejections Based on the Limitation "Synchronizing the Requested Supplemental Information to the Video Program Using the Synchronization Information"

Claim 7 further requires "synchronizing the requested supplemental information to the video program using the synchronization information" (i.e., a

time code). (AX334.) The Examiner found that Reimer expressly teaches this limitation. (AX582-83.) Specifically, the Examiner cited Reimer's teaching of a movie script being displayed as a movie is shown. (AX583.) Here, Reimer teaches a process for synchronizing this information (the movie script) where "the time code for the current frame is determined," "the row corresponding to the current scene is retrieved from the source table **802**," and "a scene row in the source table **802**" is identified; then, "[b]ased on the information contained in this scene row, it is possible to synchronize the display of the movie with the display of the script (the script is retrieved from the foundation information database **112**)." (AX1198 (col. 22, ll. 19-32).)

Reimer further teaches that a sequential set of scene rows "describe the rest of the movie" and that "[t]he frame count **810** from each row tells exactly how long that scene will be on the screen." *Id.* (col. 22, ll. 39-40). And that "[t]he scrolling rate of the script text is adjusted so that the script rolls by in the same amount of time that the scene takes in the movie" and "[e]ach new segment of the script is accessed to have it ready when it has to start appearing on the screen." *Id.* (col. 22, ll. 40-44). Reimer also teaches that "[w]ell known techniques for anticipatory buffering enable smooth scrolling and synchronization." *Id.* (col. 22, ll. 47-49).

The Examiner cited other features of Reimer, such as the when-did-this-happen query and the where-was-this-shot-taken query, that provide the user with information synchronized with the video display. (AX583 (citing col. 20, l. 19 – col. 21, l. 14).) The Examiner also relied on various figures (Figures 8, 13A, and 13B), which illustrate examples of the source table discussed above and index tables for "scenes" and "takes." *Id.*

The Examiner considered the arguments of Inventor Holdings and the declaration of Mr. Wolfe that Reimer does not teach "synchronizing the requested supplemental information to the video program using the synchronization information," but found them unpersuasive based on the claim and the express disclosures of Reimer. (AX657-58.)

4. Rejections Based on the Limitation "Updat[ing] the Time Code at Predetermined Intervals"

Claims 5, 10, 15, 30, and 33 recite that the "synchronization information" comprise a "time code" and that the claimed program "update[s] the time code at predetermined intervals." (AX334-40.) The Examiner found that Reimer expressly teaches this feature. (*See, e.g.*, AX581 (citing col. 12, ll. 32-67) (discussing the use of time codes in theatrical presentations in general), col. 17, ll. 4-20, 21-24 (discussing the use of time codes by the presentation and control component **104**); col. 22, ll. 19-33 (discussing how the user can request that the script be displayed while the movie is presented through the use of time codes);

col. 20, l. 19 – col. 21, l. 14 (discussing the "when did this happen" query's use of time codes); Figures 8, 13A, 13B (depicting the time codes in the source table, the "time in story" table, and the "take details" table).)

The Examiner found that Reimer "utilizes the current frame time code and compares it to the first frame time code column **806** and the last frame time code **808** (i.e. synchronization information)," and that "[b]ased on this synchronization information within the 'scene row,' the display and the movie script are synchronized accordingly." (AX681.) The Examiner explained that Reimer's accessing the scene text is "based on the identified scene row" by "comparison of the current frame time code to the first frame time code column **806** and the last frame time code **808** (i.e. synchronization information)." *Id.*

The Examiner also found that Reimer discloses that: "'[t]he user can send a query to the presentation and control component **104** at any time while viewing and/or interacting with a movie[] (col. 16, ll. 15-17)'" and can "make multiple requests at certain times throughout the viewing of the video program." *Id.* The Examiner explained that the "displaying of the requested supplemental information at different points during specific queries of the viewing/interacting with the video provide different/updated time-codes at predetermined intervals or at the different specific inquiries (i.e. multi pause)." (AX682.)

5. Rejections Based on the Limitation "Receiving Additional Requests from a Requestor to Interactively Change and Transmit the Requested Supplemental Information"

Claims 6, 11, 13, 22, 31, and 37 require that the user be able to "interactively change the requested supplemental information based upon the viewed program." (AX334-41.) The Examiner found that Reimer expressly teaches this feature. (AX581-82 (citing col. 6, ll. 15-22 (discussing alternate plot lines and cuts created by independent manipulation of the film); col. 14, ll. 42-48 (discussing the user-driven operation of the present invention); col. 16, ll. 3-13, 36-43 (discussing "personalized movie presentations" and "personalized movie collections")).

The Examiner found that Reimer permits user to "interact" with a list of items, such as "various versions of movies," "audio tracks," "video games," "text from books or magazines," and "personalized movie presentations." (AX683 (citing col. 14, ll. 50-53).) The Examiner found that "'[t]he user can send a query to the presentation and control component **104** at any time while viewing and/or *interacting* with a movie'[] (col. 16, ll. 15-17)" (emphasis added), which "would provide the ability to make multiple requests at certain times throughout the viewing of the video program which in return would interactively change the requested supplemental information being queried and viewed since the queries would be potentially different (col. 5, l. 23 - col. 4, l. 7; col. 6, l. 62 - col. 7, l. 2; col. 14, l. 30 - col. 22, l. 49)." (AX683-84.)

6. Rejection Based on the Limitation "Verifying That Synchronization Is Maintained with the Video Program"

Claim 14 requires the step of "verifying that synchronization is maintained with the video program." (AX336.) The Examiner found that Reimer does not "specifically call[] for the step of verifying that synchronization is maintained with the video program." (AX599.) However, the Examiner concluded that this step would have been obvious to a person of ordinary skill in the art.

The Examiner found that "Reimer explicitly discloses the script being displayed as the movie is being presented and that it is possible to synchronize the display of the movie with the display of the script (col. 22, ll. 19-31)." (AX599.) The Examiner cited that the claimed system synchronizes the supplemental information in the same way as Reimer: "'when the updated timer counter is greater-than or equal to the BEGIN-TIME but less-than the END-TIME for a specific event, that event is presented to viewer 80' (col. 10,[] l. 65 - col. 11, l. 5)." *Id.* The Examiner found that "Reimer et al. similarly teaches each type code (i.e. scene, clip, etc. . . ; see Figure 8) having time code values associated with the type codes (see Figure 8)." (AX600.) And the Examiner cited the almost identical disclosure in Reimer where a scene row is identified: "'where the current frame time code is greater than or equal to the value of the first frame time code column **806**, and less than or equal to the value of the last frame time code **808**'" and then "'[b]ased on the information contained in this scene row, it is possible to

synchronize the display of the movie with the display of the script (the script is retrieved from the foundation database **112**)' (col. 22, ll. 25-32)." (AX600.)

Thus, the Examiner found that Reimer "utilizes the current frame time code and compares it (i.e. verifies it) to the first frame time code column **806** and the last frame time code **808** (i.e. synchronization information) to attain the proper scene information." (AX600 (citing col. 22, ll. 25-32).)

Finally, the Examiner noted that "[i]t is known in the art, as is evidenced by the previously cited portions of Reimer et al., that such a verification step provides a means to ensure that what is intended to occur is indeed successful, thereby increasing the overall efficiency of the device." (AX600.)

Thus, since the system in Reimer already includes a verification step, the Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reimer to include an additional step to verify that synchronization is maintained with the video program "in order to provide a means to ensure that what is intended to occur is indeed successful, thereby increasing the overall efficiency of the device." (AX600; *see also* AX688-89.)

D. The Board's Decision

The Board affirmed all of the Examiner's anticipation and obviousness rejections, adopted the Examiner's findings and reasoning as their own, and also

adopted the Examiner's Answer pages 77-131 and 144-150. (AX5 (adopting AX97, AX172-226, AX239-245).) The Board then went on to "highlight" responses to certain arguments of Inventor Holdings, which responses are set forth below.

1. Rejections Based on the Limitation "Data Processing Apparatus Including a CPU and a Storage Device"

The Board agreed with the Examiner that an "apparatus" can be a "set of equipment designed for a particular use," and that Reimer discloses such a set of equipment. (AX5.) The Board noted that the specification does not define the term "apparatus," and in the only mention of the word "apparatus," the specification discusses only the integration of the video program with the supplemental information. (AX5-6.) The Board thus concluded that "a broad, but reasonable, construction of the term 'apparatus' is . . . '1 a : a set of materials or equipment designed for a particular use.'" (AX6.) The Board further concluded that the term "apparatus" does not require a "single computer or device," and thus did not address Inventor Holdings' arguments regarding whether Reimer describes all limitations of claim 7 in a single computer or device. *Id.*

2. Rejections Based on the Limitation "A Server Including a Controller and a Storage Device Operatively Connected to Said Controller"

The Board agreed with the Examiner that Reimer teaches the limitation "a server including a controller and a storage device operatively connected to said

controller," required by claims 39 and 41, because "Reimer et al. discloses a server (col. 7, l. 66 - col. 8, l. 11) including a controller and a storage device operatively connected to the controller (Reimer et al.; col. 8, ll. 40-50, 55-57)." (AX11.) The Board also incorporated its analysis of claim 7. (AX12.)

3. Rejections Based on the Limitation "Synchronizing the Requested Supplemental Information to the Video Program Using the Synchronization Information"

The Board agreed with the Examiner that Reimer teaches "synchronizing the requested supplemental information to the video program using the synchronization information." (AX6.) The Board relied on the Examiner's explanation that "Reimer's synchronizing the movie with the display of the movie script describes the recited synchronizing. Ans. 92-93 (citing Reimer, col. 22, 11. 19-49)." *Id.* The Board further relied on the applicants' specification (col. 6, 11. 2-6), which states: "[t]hroughout the video program, the viewer receives supplemental images, audio, dialogue, scenes and information synchronized to the specific actions and events occurring within the video program." (AX6-7.) The Board noted that the specification does not define the term "synchronize," but discusses it in general terms. (AX7.) The Board thus concluded that "a broad, but reasonable, construction of the term 'synchronize' is . . . '1 : to represent or arrange (events) to indicate coincidence or coexistence.'" *Id.* With this construction in

mind, the Board found no error in the Examiner's reliance on Reimer for describing the recited synchronizing.

The Board relied on the following description of the synchronization process in Reimer (col. 22, 11. 22-32), which was also cited by the Examiner:

> First, the time code for the current frame is determined. Second, the row corresponding to the current scene is retrieved from the source table 802. This is done by identifying a scene row in the source table 802 where the current frame time code is greater than or equal to the value of the first frame time code column 806, and less than or equal to the value of the last frame time code column 808. Based on the information contained in this scene row, it is possible to synchronize the display of the movie with the display of the script (the script is retrieved from the foundation information database 112).

Id. The Board found that "Reimer arranges the display of the script and the display of the movie to indicate coincidence." *Id.* The Board thus concluded that "Reimer describes synchronizing the requested supplemental information (Reimer's script) to the video program using the synchronization information (Reimer's time code for the current frame), as recited in claim 7." *Id.*

4. Rejections Based on the Limitation "Updat[ing] the Time Code at Predetermined Intervals"

The Board agreed with the Examiner that Reimer teaches the limitation "updat[ing] the time code at predetermined intervals," required by claims 5, 10, 15, 30, and 33, because "Reimer's user can send a query at any time while viewing or interacting with a movie. Ans. 116 (citing Reimer, col. 16, 11. 15-17)." (AX9.)

5. Rejections Based on the Limitation "Receiving Additional Requests from a Requestor to Interactively Change and Transmit the Requested Supplemental Information"

The Board agreed with the Examiner that Reimer teaches the limitation "receiving additional requests from a requestor to interactively change the requested supplemental information based upon the viewed program," required by claims 6, 11, 13, 22, 31, and 37, because "Reimer's user can send a query at any time while viewing or interacting with a movie, and this functionality changes the requested supplemental information. Ans. 121 (citing Reimer, col. 16, 11. 15-17)." (AX10.)

6. Rejection Based on the Limitation "Verifying That Synchronization Is Maintained with the Video Program"

The Board agreed with the Examiner that Reimer renders obvious the limitation "verifying that synchronization is maintained with the video program" required by claim 14. (AX14.) The Board adopted the Examiner's reasoning and analysis, in particular that "Reimer's 'anticipatory buffering' involves the obvious verifying that synchronization is maintained." (AX14-15.)

III. SUMMARY OF THE ARGUMENT

The primary issue before this Court is the meaning of the terms "server apparatus" and "data processing apparatus," which appear in most of the 64 claims on appeal. Inventor Holdings argues that the terms mean a single integrated

device. The Examiner and the Board concluded that the terms are not limited in this manner. The Examiner and the Board have the better position.

Nothing in the claims or specification suggests that a server apparatus or a data processing apparatus are limited to a single integrated device. The claims always describe the terms "a server apparatus" and "a data processing apparatus" as a set of multiple devices working together. Additionally, the claims describe devices within these apparatuses as "operatively connected," not as housed in a single integrated device. A few claims do explicitly require a single device or integration of devices. But these claims do not refer to the composition of the server apparatus or data processing apparatus, but the display. Moreover, such claims suggest that when the applicants wanted to limit the claims to a single integrated device, they did so explicitly.

The use of "a" in modifying "server apparatus" and "data processing apparatus" also does not limit the terms to a single integrated device. In patent parlance, "a" means "one or more." But even if it meant one apparatus, it would not resolve the question of whether *one apparatus* can include multiple devices.

The specification also does not narrow the meaning of the terms "server apparatus" or "data processing apparatus." The specification does not mention the terms at all, and only mentions the word "apparatus" one time, referring to the integration of an apparatus with a display.

Finally, the ordinary meaning of the term "apparatus," as set forth in a standard dictionary, is "a set of materials or equipment designed for a particular use." The Examiner and the Board properly cited this definition in the absence of a definition in the specification.

Thus, the claims, the specification, and the dictionary are all in accord with the Examiner and the Board's conclusion and are all counter to Inventor Holding's argument that "apparatus" has a narrow and limited meaning. Under these circumstances, the Examiner and the Board were correct in concluding that the broadest reasonable interpretation of "server apparatus" and "data processing apparatus" permits, *but does not require*, a single integrated device.

Given this construction, it is impossible for Inventor Holdings to distinguish the prior art patent, Reimer. Reimer plainly teaches providing supplemental information about a video concurrently with the playing of that video. And Reimer teaches synchronizing the information with the video in the same manner that the claims require synchronizing: by linking the information to the video through time codes. For these reasons, the Examiner and the Board were correct in finding that Reimer anticipates or renders obvious all of the claims on appeal.

IV. ARGUMENT

A. Standard of Review

Appellant carries the burden to show that the Board committed reversible error. *In re Watts*, 354 F.3d 1362, 1369 (Fed. Cir. 2004).

This Court reviews the Board's claim constructions to determine whether they are reasonable in light of all of the evidence before the Board. *See, e.g., In re Morris*, 127 F.3d 1048, 1055 (Fed. Cir. 1997). This Court reviews the Board's legal conclusions *de novo* and upholds its factual findings unless they are unsupported by substantial evidence. *In re Gartside*, 203 F.3d 1305, 1312-15 (Fed. Cir. 2000). "Substantial evidence is more than a mere scintilla." *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). "It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Id.* Substantial evidence is "something less than the weight of the evidence." *Consolo v. Fed. Mar. Comm'n*, 383 U.S. 607, 620 (1966). Further, if "the evidence in [the] record will support several reasonable but contradictory conclusions," then this Court "will not find the Board's decision unsupported by substantial evidence simply because the Board chose one conclusion over another plausible alternative." *In re Jolley*, 308 F.3d 1317, 1320 (Fed. Cir. 2002); *see also Consolo*, 383 U.S. at 620 ("the possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency's finding from being supported by

substantial evidence"). This standard of review "frees the reviewing courts of the time consuming and difficult task of weighing the evidence, it gives proper respect to the expertise of the administrative tribunal and it helps promote the uniform application of the statute." *Consolo*, 383 U.S. at 620.

Anticipation under 35 U.S.C. § 102 is a question of fact. *In re Rambus*, 694 F.3d 42, 46 (Fed. Cir. 2012). Obviousness under 35 U.S.C. § 103 is a question of law based on underlying findings of fact. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). What the prior art discloses is a factual inquiry. *Graham*, 383 U.S. at 17.

Given the number of issues raised by Inventor Holdings and the number of claims on appeal, the Director will focus solely on the allegations of error in the Board's decision.

B. The Examiner and the Board Reasonably Construed the Claims

The majority of claims on appeal require "a data processing apparatus" or "a server apparatus." (AX333-55.) By way of illustration, claim 7 recites a data processing apparatus with three devices:

> . . . a data processing apparatus including [1] a CPU and [2] a storage device operatively connected to the CPU and [3] a program adapted to be executed by the CPU for processing a request for the supplemental information related to a video program and providing the requested supplemental information . . . .

(AX334-35.)

On appeal, Inventor Holdings argues that all of the claims require "a *single* data processing apparatus and/or an *integrated* display device." (Brief at 8.) Inventor Holdings further argues that "all of the disclosed embodiments described are singular integrated devices capable of processing the steps of the invention." (Brief at 16.) In view of the claim language, the specification, and the evidence offered by both the Examiner and Inventor Holdings, Inventor Holdings' argument has no merit.

1. The PTO Applied the Proper Claim Construction Standard

Inventor Holdings confuses certain legal principles regarding claim construction in its opening brief by primarily relying on opinions involving appeals of district court decisions. (Brief at 10-14.) The Director briefly discusses claim construction before the PTO to resolve this confusion.

As stated above, during reexamination (and examination), claims are given their "broadest reasonable interpretation," which this Court reviews to determine whether it is reasonable in light of all of the evidence before the Board. *See, e.g.*, *In re Etter*, 756 F.2d 852, 857 (Fed. Cir. 1985) (en banc); *In re Morris*, 127 F.3d at 1055.[2] The rationale for this is two-fold. First, the PTO is an administrative body

[2] *See also In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005); *In re American Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989); *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984).

attempting to correct errors in the original examination of the patent and to examine new or amended claims as if it were an original examination; it is not a court adjudicating disputes between private parties. *In re Etter*, at 856-58.[3] Second, during examination, the PTO is attempting to assess whether the claims are patentable, not whether they are valid. *Id.*[4] In order to make this assessment and to identify all relevant prior art, the PTO needs to read the claims broadly, while permitting inventors to narrow their claims through amendment; amendment is not available in the courts. *See, e.g., id.*[5]

In discerning the broadest reasonable meaning of the claims, the PTO considers the "ordinary usage [of the words] as they would be understood by a person of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d at 1054.

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[3] *See also In re American Acad. of Sci. Tech Ctr.*, 367 F.3d at 1369 ("We have held that it is error for the Board to 'appl[y] the mode of claim interpretation that is used by the courts in litigation, when interpreting the claims of issued patents in connection with determinations of infringement and validity.'") (citation omitted).

[4] *See also In re Swanson*, 540 F.3d 1368, 1377 (Fed. Cir. 2008) ("PTO examination procedures have distinctly different standards, parties, purposes, and outcomes compared to civil litigation.").

[5] *See also In re Yamamoto*, 740 F.2d at 1572 ("An applicant's ability to amend his claims to avoid cited prior art distinguishes proceedings before the PTO from proceedings in federal district courts on issued patents.").

"Absent an express definition in their specification, the fact that appellants can point to definitions or usages that confirm to their interpretation does not make the PTO's definition unreasonable when the PTO can point to other sources that support its interpretation." *Id.* at 1056.[6] This Court has further held that "[i]t is the applicants' burden to precisely define the invention, not the PTO's." *In re Morris*, 127 F.3d at 1056.

This approach to claim construction ensures both that the full scope of the claim is considered by the PTO in view of the known prior art and that the claims are clear—a result that is in the best interest of the applicant, the public, and the courts. *In re Zletz*, 893 F.2d at 321-22.[7] If an applicant finds that the PTO definition is broader than intended, he can narrow the claims through amendment, provided that such an amendment is otherwise supported by the specification.

Applying these principles, the Board properly construed the claims and properly affirmed the Examiner's rejections of Inventor Holdings' original and proposed claims as anticipated by and/or obvious in view of Reimer.

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[6] *See also ICON*, 496 F.3d at 1379 ("we look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation"); *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989) (declining to read limitations from the specification into the claims).

[7] The Court in *Zletz* stated: "During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."

2. The PTO's Claim Construction Is Consistent with the Language of the Claims

The claims plainly show that "a data processing apparatus" includes multiple devices. For example, in claim 7, the data processing apparatus includes two devices: a CPU and a storage device. (AX334-35.) In claims 39-42, the data processing apparatus includes a CPU and memory. (AX341-44.) In proposed claim 55, the data processing apparatus includes a CPU, a storage device, a video processor, a simulcast event database, and input device, and a display. (AX351.) In proposed claim 56, the data processing apparatus includes a CPU, a storage device, a video processor, a simulcast event database, and input device. (AX352.) And, in claim 1, the related term, "server apparatus," includes a controller, a storage device, and a receiver/transmitter. (AX333.) These devices are not described as being part of a single integrated apparatus. Rather, they are described as "communicating" with each other or being *operatively* (not physically) connected to each other.[8] Apart from a laptop or smartphone, it is hard to conceive

[8] Notably, the term "system" is used throughout the claims to include multiple apparatuses and devices. (AX333-55.) For example, in claim 16, the system comprises a display device and a data processing apparatus. In claim 24, the system includes a display device, a data processing apparatus, and a reader. In claim 39, the system comprises a data processing apparatus and a server. In claim 41, the system includes a display device, a server, and a data processing apparatus. In proposed claim 56, the system includes a display device and a data processing apparatus. Thus, it appears that the terms "apparatus" and "system" are used in the same way in the specification and the claims to refer to multiple devices. Like the apparatus terms, the system terms also use the open-ended term "comprising."

of a single integrated apparatus that would include all of the various recited components.

Inventor Holdings confuses the claim construction issue by relying on the fact that the claims recite "a" data processing apparatus. (Brief at 15.) The issue is not whether the claims recite one or more data processing apparatuses, but whether a single data processing apparatus may include more than one device. For example, *one* computer can include multiple, separate devices, *e.g.*, a screen, keyboard, mouse, speakers, and a CPU. In any event, in patent drafting, the indefinite articles "a" and "an" mean one or more. *See, e.g., Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008) ("That 'a' or 'an' can mean 'one or more' is best described as a rule, rather than merely as a presumption or even a convention.")[9]

It should be noted that the claims always describe the data processing and server apparatuses using the transitional terms "including" and "comprising." As Inventor Holdings acknowledges (Brief at 15), it is well established that "including" and "comprising" are open-ended terms that do not exclude additional unrecited elements or method steps. *See, e.g., Lucent Techs., Inc. v. Gateway, Inc.*,

[9] *See also Free Motion Fitness, Inc. v. Cybex Int'l, Inc.*, 423 F.3d 1343, 1350 (Fed. Cir. 2005) ("references to a single cable in the specification are found in the description of the preferred embodiments, and do not evince a clear intent by the patentee to limit the article to the singular"); *Collegenet, Inc. v. Applyyourself, Inc.*, 418 F.3d 1225, 1232 (Fed. Cir. 2005) (same).

525 F.3d 1200, 1214 (Fed. Cir. 2008) ("This court has consistently interpreted 'including' and 'comprising' to have the same meaning, namely, that the listed elements . . . are essential but other elements may be added.").[10] Thus, rather than limiting the claims to a single integrated device, as Inventor Holdings asserts, the applicants drafted the claims to do exactly the opposite: to permit additional devices to be included in the apparatus.

There are two claims (claim 17 and proposed claim 56) that require integration, but not the kind of integration Inventor Holdings asserts with respect to the "data processing apparatus." Claim 17 states: "The system according to claim 16, wherein said display device and said data processing apparatus are integrated." (AX337.) Claim 56 similarly states:

> A system, comprising a display device . . . and a data processing apparatus including: a CPU . . . a storage device . . . a video processor . . . a simulcast event database . . . an input device . . . wherein said display device and said data processing apparatus are integrated into a single apparatus.

[10] *See also CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360-61 (Fed. Cir. 2007) ("comprised of" is an open-ended term); *Gillette Co. v. Energizer Holdings Inc.*, 405 F.3d 1367, 1371-73 (Fed. Cir. 2005) ("comprising" and "group of" are open-ended terms); *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376 (Fed. Cir. 2004) ("containing" and "mixture" are open-ended terms); *Invitrogen Corp. v. Biocrest Manufacturing, L.P.*, 327 F.3d 1364, 1368 (Fed. Cir. 2003) ("comprising" in a method claim is an open-ended term); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997) ("'Comprising' is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.").

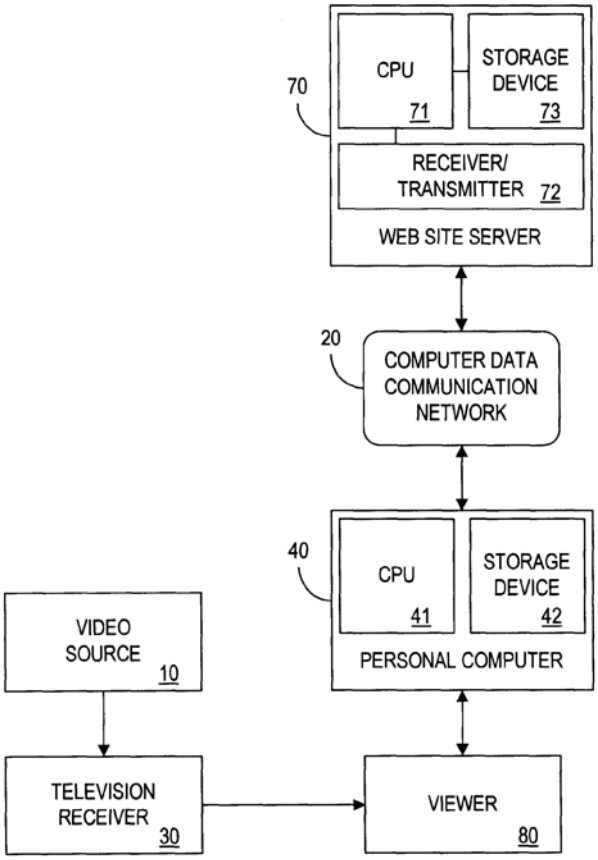
(AX352.) These claims do not speak to whether the data processing apparatus itself includes multiple devices. Rather, they speak to whether the data processing apparatus is integrated with the display device.

In other words, when these two claims say "integrated," they are referring to whether the viewer is viewing/obtaining the supplemental information on the same display that the viewer is viewing/obtaining the video feed (e.g., a computer) or whether the viewer is viewing/obtaining the video feed and supplemental information on different displays (e.g., a TV and a computer). Notably, both approaches include multiple devices and require a network connection (elements **20** and **60**)—the alleged deficiency of Reimer.[11]

The figures in the specification illustrate this difference. Figure 1, which the specification describes as "a schematic block diagram overview of one system constructed in accordance with the present invention," shows the viewer **80** interacting with multiple devices, the video being transmitted from a video source,

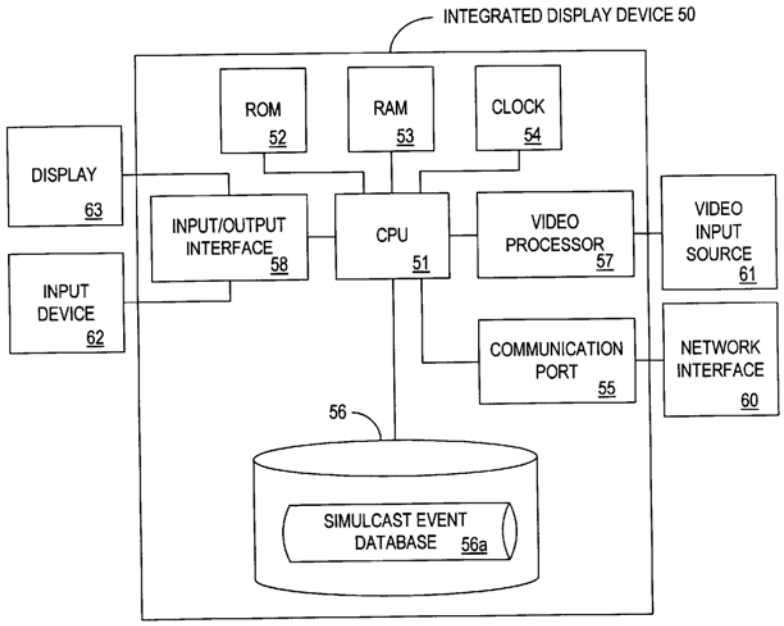
[11] In an attempt to distinguish Reimer, Inventor Holdings asserts that Reimer "discloses a data processing environment 102 that includes a plurality of distributed devices (*e.g.*, set top boxes in combination with television monitors, or computers) for receiving control and information messages from human operators." (Brief at 6-7, 17-18.) However, this is essentially what the specification describes as the preferred embodiment of the claimed invention in Figure 1.

and the supplemental information being transmitted over a network from a website server:



(AX1143.)

On the other hand, Figure 3, which the specification describes as "a schematic block diagram illustrating the preferred *integrated display device* of the present invention," shows an embodiment of claims 17 and 56:



(AX1145.) Video and supplemental information are still being transmitted from outside the device, but the viewer views and obtains the video and information on one display.

The fact that only two of the 64 claims on appeal mention a single or integrated device undermines Inventor Holdings' argument that *all* of the claims include this narrowing limitation. Typically, when an inventor explicitly includes a limitation in one claim and is silent to the limitation in others, it indicates that the other claims are not so limited. *See, e.g., In re Rambus*, 694 F.3d at 48 ("if a

memory device were always a single chip there would be no need to use the word 'single' in claim 6, but not claim 1").[12]

3. The PTO's Claim Construction Is Consistent with the Specification

Although the specification can provide important guidance for the meaning of claim terms, here the specification does nothing to limit the meaning of "data processing apparatus" or "server apparatus." In fact, the specification does not even mention the terms "data processing apparatus" or "server apparatus." Given the narrow definition that Inventor Holdings seeks to apply across all of its claims, this is fatal. *See, e.g., In re ICON*, 496 F.3d at 1379 ("With little guidance from the specification, the Board's construction properly represents the broadest reasonable construction."); *In re Morris*, 127 F.3d at 1056 (affirming the PTO's

[12] *See also Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1326 (Fed. Cir. 2008) (holding that the inclusion of a "uniformity criterion" in a dependent claim evidences that such a requirement was not present in the independent claim or in the invention overall); *Voda v.Cordis Corp.*, 536 F.3d 1311, 1320 (Fed. Cir. 2008) (holding that the inclusion of "substantially straight" in a dependent claim "strongly implies" that the independent claim and the other dependent claims do not have that limitation); *Phillip.*, 415 F.3d at 1315 ("the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim"); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("where the limitation that is sought to be 'read into' an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.").

broad interpretation of the term "integral" absent an express definition in the specification).[13]

The word "apparatus" itself appears only once in the specification, as follows: "[t]he present invention also provides an apparatus which integrates the video program and the supplemental information on the same monitor." (AX1149 (col. 3, ll. 46-48).) However, this integrated apparatus is the "integrated" display claimed in dependent claim 17 and proposed claim 56 and illustrated in Figure 3, not the data processing apparatus or server apparatus claimed in in claims 1, 7, etc.

When describing the embodiments of those claims, the specification indicates that there are multiple devices involved: "Viewers can simultaneously view the video program on a TV receiver, for example, and receive the supplemental information on their computer monitor display." (AX1149 (col. 4; ll. 32-34).) The specification goes on to describe how viewers obtain the program identification information and synchronization information on one device ("a display screen **31** of the television receiver **30**") while viewing the supplemental

[13] The Court in *In re Morris* aptly stated: "The problem in this case is that the appellants failed to make their intended meaning explicitly clear. Even though the appellants implore us to interpret the claims in light of the specification, the specification fails to set forth the definition sought by the appellants. Nowhere in the technical description of the invention does the application use or define the phrase 'integrally formed.' The phrase briefly appears in the 'Summary of the Invention' and again in a description of the 'advantages of the present invention.' In neither case is a drawing referenced or a precise definition given." 127 F.3d at 1056.

information using a different device ("a personal computer" using "web pages" via a "web browser"). (AX1150-51 (col. 6-7).) This is the system illustrated in Figure 1, reproduced above, where the viewer **80** is connected to both the television receiver **30** and the personal computer **40**. Notably, Figure 1 shows *five separate devices* (a video source, a television receiver, a web site server, a computer data communication network, and a personal computer), and, as previously stated, a network connection.

However, even if the specification did cite an example in which a server apparatus or data processing apparatus were contained in a single device, this would not limit all of the claims in this manner. The fact that an invention *can* be carried out in one way, does not *require* that it be. *See, e.g., In re Rambus*, 694 F.3d at 46-47 (declining to construe "memory device" to require a single chip component, despite single chip embodiments in the specification, absent "manifest disavowal" of multichip devices).

4. The PTO's Claim Construction Is Consistent with Other Evidence

Inventor Holdings argues that the Examiner erred in relying on extrinsic evidence, in the form of a dictionary, to construe the term data processing apparatus. (Brief at 9-10.) But using a dictionary definition was appropriate here, where the specification did not define the term "data processing apparatus" and only used the term "apparatus" once (and in a generic sense) with respect to one

alternate embodiment. *See Mass. Inst. of Tech. v. Abacus Software*, 462 F.3d 1344, 1351 (Fed. Cir. 2006) (relying on a dictionary to construe the term "scanner" where the specification lacked a definition and where the dictionary definition tracked what the inventors disclosed in the specification). Using a dictionary definition was also appropriate because the dictionary definition of "apparatus" was consistent with the use of the term in the claims and specification. *Id.* The dictionary defines "apparatus" as "a set of materials or equipment designed for a particular use." (AX6, 664-65.) The term "apparatus" in the claims repeatedly refers to something containing more than one device.

Inventor Holdings further argues that the Examiner and the Board did not give the opinion of its expert, Dr. Wolfe, sufficient weight. Dr. Wolfe opines: "it is clear to the person of ordinary skill in the art that the claim is reciting a single device which stores the program for processing the synchronization request and which executes the program." (AX501-502 (¶¶ 25-27); *see also* AX707 (¶ 18).) However, Dr. Wolfe's construction of "apparatus" conflicts with the claim language, the specification, and the plain meaning of the term, and thus cannot be given much weight. *See, e.g, Phillips*, 415 F.3d at 1318 ("a court should discount any expert testimony 'that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history'") (citations omitted); *Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353,

1361 (Fed. Cir. 2005) ("expert testimony at odds with the intrinsic evidence must be disregarded").

Moreover, Dr. Wolfe did not rely on any contemporaneous extrinsic evidence, such as the use of the term "data processing apparatus" by persons of ordinary skill in the art. Rather, he simply stated, in a conclusory fashion, that he reads claim 7 to require a single device. Under these circumstances, Dr. Wolfe's opinion was appropriately given little weight by the Examiner and the Board. *See, e.g., Phillips*, 415 F.3d at 1318 ("conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court").[14]

Inventor Holdings also suggests that the PTO made a procedural error in not citing evidence to rebut Dr. Wolfe's opinion:

> Dr. Wolfe was able to discern the meaning of the term from the intrinsic record and none of the PTAB, the Examiner or the Third Party Requester provided any contradictory evidence concerning the understanding of a person of ordinary skill in the art that would suggest Dr. Wolfe's interpretation was wrong or needed supplementing through the use of an extrinsic source. Indeed, the Board offered no explanation as to why the proffered dictionary

[14] *See also In re American Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368 (affirming Board's finding that expert declarations on the meaning of "user computer" were unpersuasive because they consisted of personal opinions and lacked factual corroboration); *Network Commerce*, 422 F.3d at 1361 (disregarding expert opinion that was not supported by industry publications or other independent sources); *Velander v. Garner*, 348 F.3d 1359, 1371-75 (Fed. Cir. 2003) ("[A]ccord[ing] little weight to broad conclusory statements [in expert testimony before the Board] that it determined were unsupported by corroborating references [was] within the discretion of the trier of fact to give each item of evidence such weight as it feels appropriate.").

> definition should be selected over the construction provided by one of ordinary skill in the art.

(Brief at 12.) There was no procedural error here.

Because claim construction is a legal issue, the question of the sufficiency of the PTO's evidence seems misplaced. Nevertheless, the Examiner and the Board provided ample evidence, in the form of citations to the claims and the specification, supporting their construction of the claims. The Examiner and the Board are not required to rely on rebuttal evidence to contradict expert testimony as they have broad discretion on how to weigh the expert opinion. *See In re American Acad. of Sci. Tech Ctr.*, 367 F.3d at 1368. Moreover, the Board did offer an explanation as to why it preferred the Examiner's approach to Dr. Wolfe's insofar as it relied on the Examiner's findings and reasoning, as well as the Examiner's response to Inventor Holdings' brief. (AX4-5.)[15] Given that the Examiner wrote a 120-page Final Office Action, addressing every limitation of every claim separately, as well as responding to Dr. Wolfe's declarations and Inventor Holdings' remarks, it was appropriate for the Board to rely heavily on the

[15] "Upon careful review, we find unpersuasive Appellant's arguments and evidence, including both declarations from Andrew Wolfe, that the Examiner erred in finding [the] claims . . . anticipated by Reimer. Based on the record, we adopt the Examiner's findings and reasons as our own, and we also adopt the Examiner's response to Appellant's Appeal Brief." (Citations omitted.)

Examiner's findings and reasoning. When the Board relies on the Examiner's analysis, the Board does not need to repeat that analysis again in its decision.[16]

Finally, expert testimony, just like a dictionary, is itself extrinsic evidence, and does not control claim construction. *See, e.g.*, *Phillips*, 415 F.3d at 1318. In fact, expert testimony is often less reliable than a dictionary definition because it is subject to bias. *Id.* at 1318-19 ("extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias").

For all of these reasons, the Examiner and the Board's construction of the term "data processing apparatus," grounded in the claim language, the specification, and the ordinary usage of the term, was reasonable and should be affirmed.

[16] *See, e.g.*, *In re Karp*, 358 F.2d 1012, 1017 (CCPA 1966) ("Appellant contends that the board did not consider the Karp affidavit in reaching its conclusion of obviousness, and thereby committed reversible error in that the affidavit constituted affirmative evidence of nonobviousness. . . . The record discloses that the examiner considered the affidavit in the nature of an opinion unsupported by facts or data sufficient to overcome the examiner's conclusions of obviousness. In disposing of appellant's petition for reconsideration, the board stated that 'after reviewing appellant's arguments,' it adhered to its opinion with respect to making any change therein. We are not in agreement, therefore, that the board 'completely ignored' the affidavit.").

C. The Examiner and the Board Properly Rejected the Bulk of the Claims as Anticipated by Reimer

Under 35 U.S.C. § 102, a claim is anticipated "if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The claims on appeal are anticipated because Reimer teaches every element of the claims.

1. Reimer Teaches a Single, Integrated Data Processing Apparatus

Given the strength of the Examiner's construction of the apparatus terms, the Board did not reach the question of whether Reimer teaches that its system may be run on a "single computer" or on an "integrated device." However, because the Examiner did find that Reimer teaches such an integrated system, and the Board adopted those findings, the Director believes that this issue warrants mention here.

Reimer discloses what it calls "a distributed computing environment," but that is not all that it teaches. Reimer specifically states that its devices can be "positioned locally to each other" and/or "implemented using a single computer":

> The present invention shall now be discussed more generally with reference to FIG. 1, which illustrates a block diagram of a data processing environment **102** of the present invention. This environment **102** includes a plurality of user devices **106** representing, for example, set top boxes (STB) in combination with television monitors, or computers (such as personal computers). . . .

> Each user device **106** also includes a well known transmit and receive component to transmit and receive control and information signals from other devices via a communication medium **124**. Preferably, the communication medium **124** represents a data communication network, such as a local area network or a wide area network, in which case the environment **102** represents a distributed computing environment. *However, the present invention is not limited to this connection scheme. For example, some of the devices shown in FIG. 1 may be positioned locally to each other, and/or some of the devices in FIG. 1 may be implemented using a single computer. In sum, any mechanism or scheme for connecting the devices shown in FIG. 1 is within the scope and spirit of the present invention.*

(AX1190 (col. 6, ll. 38-51).) This excerpt of Reimer was cited repeatedly by the Examiner during reexamination and before the Board. (*See, e.g.,* AX632, 403, 417, 419, 147, 175-76.)

Later, Reimer again discusses that its system may be executed on a stand-alone computer *or* on a more limited settop box, and that its system may be integrated or distributed:

> As noted above, *each user device **106** can be a full function PC, or a more limited function settop box*. Depending on the hardware and software capacity of any particular user device **106**, the client application executing thereon may be distributed over the user device **106** and an intermediate station emulating a full function ends station. Independent of this distribution of function, the user device/intermediate station interacts with both the relational databases **112**, **122** and the digital movie servers **108**, **118** *through the integrated interface* (i.e., the presentation and control component **104**).

(AX1191 (col. 8, ll. 21-31).)

Thus, in the event that this Court disagrees with the PTO's claim construction, this Court can affirm the Examiner's anticipation rejections on this alternate basis.

2. Reimer Teaches a Storage Device Operatively Connected to the CPU

Inventor Holdings argues that, even if the PTO's construction of the term "apparatus" is correct, Reimer still fails to anticipate claim 7 because the claim requires the use of a data processing apparatus, including a CPU and a storage device *operatively connected to the CPU*, and thus use of "a single device" that contains the program for processing the synchronization request and providing the supplemental information. (Brief at 17 (citing Wolfe Decl. ¶ 27 (AX501).)

This argument is simply a re-argument of Inventor Holdings' position as to the meaning of "apparatus." There is no language in the claim that suggests that "operatively connected to" means present in the same device. In fact, the term "operatively connected to" more reasonably indicates that the two devices are separate but connected in such a way as to work together.

Nevertheless, the Examiner found that Reimer does teach a storage device that is "operatively connected" to a CPU because it explicitly teaches that the user devices and databases are implemented "using a computer system **202** as shown in FIG 2" and "the computer system **202** also includes secondary memory **214**, which

may include a storage device **216**, such as a removable disk drive (i.e., floppy drive)."[17] (*See* AX582.)

3. Reimer Teaches Synchronizing the Requested Supplemental Information Using Synchronization Information and Updating It at Predetermined Intervals

Claim 7 requires "synchronizing the requested supplemental information to the video program using the synchronization information." (AX491-92.)[18] The specification describes "synchronization information" as comprising: "a running time-code that is updated on the display screen **31** at predetermined intervals." (AX1150 (col. 6, ll. 63-65).) Claim 5, as well as claims 10, 15, 30, 33, require that "the synchronization information comprises a time-code" that is "update[d] . . . at predetermined intervals." (*See, e.g.*, AX333.) Thus, claim 7 and claim 5 require that the supplemental information is synchronized using a time code and, at least

[17] As to Inventor Holdings argument that the device must contain a "program," Reimer makes numerous references to the program that implements its system. The name of the Reimer patent is "*Computer Program Product and Program Storage Device* for Linking and Presenting Movies with Their Underlying Source Information." (AX1188.) Reimer's claim 9 recites "a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method steps for providing on demand access to secondary information while primary information [a video] is being continuously presented to the user . . . ." (AX1199-1200.) Claims 10 and 11 recite similar limitations. (AX1200.)

[18] Inventor Holdings asserts that its argument as to claim 7 applies with equal force to independent claims 12, 16, 26, 27, 32, 40, 42-46, 49-51, and 60-63 and all claims depending from those claims. (Brief at 22.)

claims 5, 10, 15, 30, 33 require that the time code is updated at predetermined intervals.[19]

Inventor Holdings argues that Reimer fails to disclose synchronizing the requested supplemental information to the video program using the synchronization information as recited in claim 7 and claim 5, and that the time codes are not updated as required. (Brief at 20-24.) However, even a cursory review of Reimer shows that it uses time codes to synchronize its supplemental information with the video program, and that the time codes are updated at predetermined intervals.

The best example of this is Reimer's "Show Option." In this embodiment, Reimer explains how the script can be "synchronized" with the display of the movie as the movie is being presented, using "time codes":

> According to an embodiment of the invention, the user can request that the script be displayed as the movie is presented. The present invention processes this user request as follows. First, the ***time code*** for the current frame is determined. Second, the row corresponding to the current scene is retrieved from the source table **802**. This is done by identifying a scene row in the source table **802** where the current frame ***time code*** is greater than or equal to the value of the first frame ***time code*** column **806**, and less than or equal to the value of the last frame ***time code*** column **808**. *Based on the*

[19] Inventor Holdings also argues that the Board improperly construed the term "synchronization" as "to represent or arrange (events) to indicate coincidence or coexistence," because the Board "offered no evidence to suggest that this is the definition that would be understood by a person of ordinary skill in the art." (Brief at 20.) However, the Board is not required to introduce such evidence. Inventor Holdings does not otherwise argue why this construction is in error.

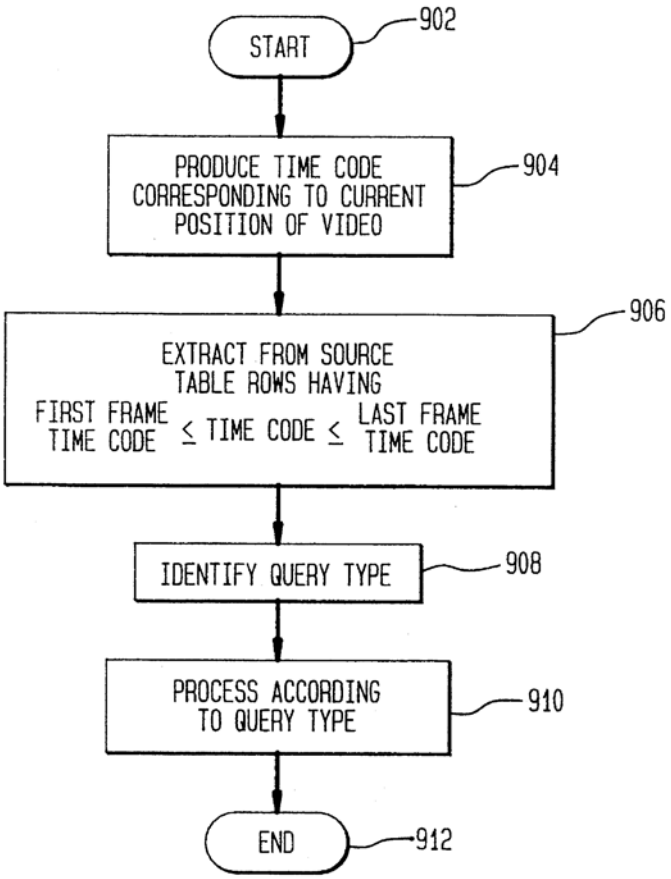
> *information contained in this scene row, it is possible to* ***synchronize*** *the display of the movie with the display of the script (the script is retrieved from the foundation information database* ***112****).*

(AX1198 (col. 22, ll. 19-32) (emphasis added).) The Show Option goes on to explain how updating the time codes takes place through "adjustments" and "buffering":

> The scrolling rate of the script text is adjusted so that the script rolls by in the same amount of time that the scene takes in the movie. Each new segment of the script is accessed to have it ready when it has to start appearing on the screen. Since the scrolling window has many lines of the script on it, the slug line for the following scene will appear before the video for the current scene has completed. Well known techniques for anticipatory buffering enable smooth scrolling and synchronization.

(AX1198 (col. 22, ll. 40-49).)

Additionally, in Figure 9B, reproduced below, Reimer explains how it uses time codes to provide supplemental information in response to a user query for information:



(AX1176.)

Based on these disclosures, the Examiner and the Board properly found that Reimer teaches synchronization using time codes and that the time codes are updated during the synchronization process.

4. Reimer Teaches Receiving Additional Requests from a Requester to Interactively Change the Requested Supplemental Information

Claims 6, 11, 13, 22, 31, and 37 require that the user be able to "interactively change the requested supplemental information based upon the viewed program." (AX334-41.) The specification explains this feature as follows:

> Another aspect of the present invention allows the viewer to interactively change the supplemental information as it is being received. This embodiment allows the viewer to make additional requests at certain times throughout the video program to, for example, skip or modify certain portions of the supplemental information.

(AX1149 (col. 3, ll. 39-44).) Thus, the specification describes at least one example of interactively changing the supplemental information as making additional requests for supplemental information during the video program.

Reimer teaches the same feature. For example, Reimer provides that a user can obtain a variety of supplemental information through a "true video on demand infrastructure." (AX1190 (col. 5, ll. 24-25).) Users can make requests for the names of actors and directors of particular scenes, listen to voice overs of directors or actors with comments about a scene, view or pan stills in fine detail, change a movie to a desired level of censoring, view the script via picture in a picture, and view the movie "concurrently" with supplemental information. (AX1190 (col. 5, ll. 43-67).)

Reimer also teaches other examples of interactive changes. For example, it teaches that alternate plot lines and cuts can be achieved through independent manipulation of the video and that the user can create "personalized movie presentations" and "personalized movie collections." (AX1190 (col. 6, ll. 15-22), AX1189 (col. 3, ll. 49-67) ("The present invention is also directed to a system and

method for enabling users to create, modify, and utilize a personalized version of a movie."), AX1195 (col. 16, ll. 3-13).)

Inventor Holdings argues that the claims require that interactive changes be made "without . . . stopping receipt of previous supplemental information in response to an entirely new request for new supplemental (i.e., not modified) supplemental information." (Brief at 24-25.) However, there is no such requirement in any of the claims, nor is such a requirement discussed in the specification. Moreover, Reimer teaches that users *may* request supplemental information through the use of a "pause button," not that use of a pause button is required. (AX1195 (col. 16, ll. 17-28).)

D. The Examiner and the Board Properly Rejected Certain Additional Claims as Obvious in View of Reimer

Under 35 U.S.C. § 103, a claim is obvious if it recites a "combination of familiar elements according to known methods" that "does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007); *see also Graham v. John Deere Co.*, 383 U.S. 1 (1966). The claims on appeal that are not anticipated by Reimer, offer no more than obvious improvements over its teachings.

1. Reimer Renders Claim 14 Obvious

Claim 14 requires the step of "verifying that synchronization is maintained with the video program." (AX336.) The Examiner found that Reimer does not

"specifically call[] for the step of verifying that synchronization is maintained with the video program." (AX599.) However, the Examiner concluded that this step would have been obvious to a person of ordinary skill in the art.

The Examiner found that "Reimer explicitly discloses the script being displayed as the movie is being presented and that it is possible to synchronize the display of the movie with the display of the script (col. 22, ll. 19-31)." *Id.* The Examiner found that the claimed system synchronizes the supplemental information to the proper location in the video feed, in the same way as Reimer: by using begin and end time codes. (AX599-600.) Thus, the Examiner found that Reimer "verifies" the timing of the video with the supplemental information, just as the claims do. (AX600 (citing col. 22, ll. 25-32).)

In terms of ensuring that the synchronization is *maintained*, the Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Reimer to include a specific step to verify that synchronization is maintained with the video program "in order to provide a means to ensure that what is intended to occur is indeed successful, thereby increasing the overall efficiency of the device." (AX600, 688-89.) The Board agreed, and pointed to Reimer's discussion of "anticipatory buffering" as an example of such verification. (AX14-15.)

As to anticipatory buffering, Reimer teaches:

> The frame count **810** from each row tells exactly how long that scene will be on the screen. The scrolling rate of the script text is adjusted so that the script rolls by in the same amount of time that the scene takes in the movie. Each new segment of the script is accessed to have it ready when it has to start appearing on the screen. Since the scrolling window has many lines of the script on it, the slug line for the following scene will appear before the video for the current scene has completed. Well known techniques for anticipatory buffering enable smooth scrolling and synchronization.

(AX1198 (col. 22, ll. 43-49).) Thus, while Reimer does not expressly use the words "verifying" and "maintaining," it is clear from Reimer either that these steps would take place (through adjusting the script so that it runs in the proper time with the video) or that it would be an obvious improvement to add an additional verification step.

Inventor Holdings argues that no evidence has been provided by the Examiner, the Board, or the Third Party Requester that Reimer verifies that synchronization is maintained. (Brief at 26-27.) However, as stated above, the evidence is the teaching of Reimer. The Examiner pointed out in Reimer where the verification step takes place, and the Board pointed out in Reimer where maintaining synchronization would be expected to take place.

2. The Remaining Obviousness Rejections Should Be Affirmed

On pages 28-31 of its brief, Inventor Holdings argues that various obviousness rejections regarding claims 23, 25, 35, 36, 47, 48, and 52-56 should be

reversed. As Inventor Holdings concedes, all of those arguments relate to issues already addressed above with respect to Reimer. Therefore, the Director will not separately address those claims here.

V. CONCLUSION

For the foregoing reasons, the Board's decision should be affirmed.

Respectfully submitted,

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August 1, 2014

RULE 32(a)(7)(C) CERTIFICATE OF COMPLIANCE

I certify pursuant to FRAP 32(a)(7) that the foregoing brief complies with the type volume limitation. The total number of words in the foregoing brief, excluding the table of contents and table of authorities, is 11,440, as calculated by Microsoft Word 2010 program.

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CERTIFICATE OF SERVICE

I hereby certify that on August 1, 2014, I electronically filed the foregoing BRIEF FOR APPELLEE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE with the Court's CM/ECF filing system, which constitutes service, pursuant to Fed. R. App. P.25(c)(2), Fed. Cir. R. 25(a), and the Court's Administrative Order Regarding Electronic Case Filing 6(A) (May 17, 2012).

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